20070302.ba v04_n024.bam.20070302

>From ???@??? Fri Mar 2 16:54:36 2007 -0600
Date: Fri, 2 Mar 2007 22:52:30 GMT
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 4024
Message-Id: <20070302225231.63FDF187B09@srvr1.theporch.com>

BOATANCHORS Digest 4024

Topics covered in this issue include:

  1) Re: Lowering power supply output voltage.
     by "Tom Rauch" <w8ji@contesting.com>
  2) Re: USA amateur call sign - overseas
     by "JAMES HANLON" <knjhanlon@msn.com>
  3) FS: B&W 850A, Collins Radio, Mil Stuff, National and Other Goodies
     by David Hollander <n7rk@cox.net>
  4) Abuses by Ebay against customers and other dirty deeds
     by John Dilks K2TQN <oldradio@worldnet.att.net>
  5) RE: USA amateur call sign - overseas
     by "Ed Sieb" <esieb@sympatico.ca>
  6) Re: Lowering power supply output voltage.
     by "Arden Allen" <gumbear@pacbell.net>
  7) Re: Lowering power supply output voltage.
     by "Tom Rauch" <w8ji@contesting.com>
  8) Re: Lowering power supply output voltage.
     by "David Stinson" <arc5@ix.netcom.com>
  9) Re: Lowering power supply output voltage.
     by "David Stinson" <arc5@ix.netcom.com>
 10) Re: Lowering power supply output voltage.
     by "Arden Allen" <gumbear@pacbell.net>
 11) Wanted - QST, May 1955
     by "Art Lebermann" <artleb@earthlink.net>
 12) Postpone and resume... ??
     by "Herbert M. Rosenthal" <herbrose@comcast.net>
 13) Address necessary for US ham call
     by John Sehring <jsehring@siouxvalley.net>
 14) RE: Address necessary for US ham call
     by "Ed Sieb" <esieb@sympatico.ca>
 15) Need Radiomarine AR-8511 Data
     by Al Klase <al@ar88.net>
 16) Evaluate freq counters
     by John Sehring <jsehring@siouxvalley.net>
 17) Re: Evaluate freq counters
     by Bob Roehrig <broehrig@aurora.edu>
 18) Old MARS Linear

by "Gary H. Harmon Jr." <gharmon@idworld.net>

Message-ID: <01df01c75c4a$da773810$640fa8c0@radioroom>
From: "Tom Rauch" <w8ji@contesting.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Lowering power supply output voltage.
Date: Thu, 1 Mar 2007 16:42:38 -0500
MIME-Version: 1.0
Content-Type: text/plain;
format=flowed;
charset="iso-8859-1";
reply-type=original
Content-Transfer-Encoding: 7bit

> Now think of the <<<<full wave bridge rectifier>>>> as
> utilizing both half
> cycles of a rectified transformer secondary with the
> current from both half
> cycles flowing in the same direction. Feeding this
> pulsating current into
> the center tap of the receiver tube rectifier's B+
> transormer winding will
> either add
> voltage or subtract voltage from the cathode of the
> receiver's tube
> rectifier, depending on which way one has decided that
> current flows.
>
> Does anyone understand now?

Substitute a resistor for the power supply at the center tap, and you should easily see why the idea of installing a supply there will not work. The only possible change is it can increase voltage. Otherwise the supply has to SINK current, not source current. As a matter of fact many bias supplies simply lift the center tap and add a resistance or inductance to lift the center tap negative.

If you installed a bridge rectifier in the CT lead and powered it, the center tap would go right up to supply voltage negative peak on peaks and sit there. The main B+ HV lines would go to zero. Why is that? Simple. The negative voltage from the CT holds the bridge rectifier OFF until the bridge is loaded with enough dissipation in a shunting component (like a zener, a resistor, or an inductive reactance) to reduce the negative pulse to a voltage lower than the bridge is supplying.

The ONLY way you could have any HV would be to sink current from the CT with a load of some type, like a resistor or reactor, or the normal connection to ground. The bridge rectifier and transformer connected to it would only add useless unnecessary dissipation to the resistance needed to restore HV.

Another test would be to substitute a battery and look at what happens. The battery, with negative connected to the CT, would charge. The charging current would be equal to the load current drawn from the supply positive rail. Only a charging battery would allow HV to appear.

There's a time when we just have to face facts. Almost anything we do other than going to a choke input or somehow changing the actual transformer voltage with a bucking winding from the power line will make heat, noise, and/or increase transformer stress.

The simplest system is converting the supply to choke input or bucking the power line. The next best is to add a resistor and live with the heat. It makes no difference if that resistor is added at the cathode of the rectifier or the CT, just like it makes no practical difference (other than CT voltage) where the choke for the choke input is added.

As a matter of fact I moved the choke from the normal choke input of my Globe Scout to the center tap of the HV transformer so I could rectify the peak negative voltage and develop bias for grid block keying. You can't lower HV by supplying negative voltage there. It would simply cut the rectifier conduction off because it is already trying to go negative. It's really pretty simple. Build you system and see how well it works. Be sure to wear goggles if you have an electrolytic across the output of the bridge rated at less than B+ and no bleeder.

73 Tom

73 Tom

Message-ID: <BAY110-DAV17ABC661388B97F46D4F57A0800@phx.gbl>
From: "JAMES HANLON" <knjhanlon@msn.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: USA amateur call sign - overseas
Date: Thu, 1 Mar 2007 15:38:33 -0700
MIME-Version: 1.0
Content-Type: multipart/alternative;
     boundary="----=_NextPart_000_0061_01C75C17.ABB04E50"

This is a multi-part message in MIME format.

------=_NextPart_000_0061_01C75C17.ABB04E50
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

John,

Visit =
http://www.arrl.org/FandES/field/regulations/io/#IARP<http://www.arrl.org=
/FandES/field/regulations/io/#IARP> for info on an International Amateur =
Radio Permit. You could probably ask that question of the ARRL's Dan =
Henderson at reginfo@arrl.org<mailto:reginfo@arrl.org> .

Jim, W8KGI

------=_NextPart_000_0061_01C75C17.ABB04E50
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

* *
*   ---REMAINDER OF MESSAGE TRUNCATED---   *
*   This post contains a forbidden message format   *
* (such as an attached file, a v-card, HTML formatting)   *
*   Mail Lists at theporch.com only accept PLAIN TEXT   *
* If your postings display this message your mail program   *
* is not set to send PLAIN TEXT ONLY and needs adjusting   *
* *

------=_NextPart_000_0061_01C75C17.ABB04E50--

Message-ID: <45E761D5.2070809@cox.net>
Date: Thu, 01 Mar 2007 16:29:25 -0700
From: David Hollander <n7rk@cox.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>

Subject: FS: B&W 850A, Collins Radio, Mil Stuff, National and Other Goodies
Content-Type: text/plain; charset=windows-1252; format=flowed
Content-Transfer-Encoding: 8bit

Here are some items for sale. Prices do not include shipping. I will ship overseas.

B&W 850A Band-Switching Pi-Network Assembly.....$90 plus shipping
This network is for a homebrew linear amplifier using a 4-1000, a 3-1000 or a pair of 4-400's or similar. This network will cover 80-10 meters and will match a plate load impedance of 2500-5000 ohms. I used one of these in the 4-1000 amplifier I built in the 1990's. This unit is in good shape with no arcs or burn marks but the Lucite supports for the coil need to be glued back in place. Age causes these to dry out and come loose.
http://members.cox.net/radiodx3/bwcoil_assy.JPG

US Navy Collins Radio MBF VHF Transceiver (6 Meters).....$150 plus shipping
 From what little info I found this is a VHF Transmitter/receiver (US Navy); 60 to 80 MHz; Power output is 5 watts on AM phone only. Power requirement: 110V DC/AC. This one has a couple of 6 meter crystals in the socket so I would assume it has been tuned down to 6 meters. The unit appear to be in pretty nice shape. The insides also look very good. I fired it up using a cheater cord. It had audio with bad hum so it needs new electrolytics. Includes the mike shown in the picture and a schematic. I do not have a power cord.
http://members.cox.net/radiodx5/mbf.JPG
http://members.cox.net/radiodx5/mbf2.JPG

ITC Multi-2000 Vintage All Mode 2 Meter Transceiver...$125 plus shipping
This is a vintage 2 meter transceiver from the mid 1970's. This was the Cadillac of 2 meter radios in it's time. This radio will work SSB, CW and FM from 144 to 148 MHz. Power output on FM is 10 watts and 1 watt in the low power position with 15 watts PEP on SSB. Cosmetically, the radio looks good but needs some cleaning. The insides of the radio look good.
 From a working standpoint, the receiver works and I listened to FM and SSB signals while checking the unit out on my workbench. With a Bird watt meter, I measured 10 watts out and 1 watt in the low power position using the test button. I did not have a microphone so I was unable to check the status of transmitted audio. None of the dial lights are working so it probably has a bad connection on the bus line going to the dial lights. Includes the original manual, the original advertising brochure and a photocopy of the service manual.
http://members.cox.net/radiodx5/multi2000.JPG

AN/URM-120 Wattmeter with Manual.....$175 plus shipping
The URM-120 will measure forward and reflected RF power from 10 watts to 1000 watts within a frequency range of 2 MHz to 1 GHz. Three plug-in

coupler detectors each rated to cover a portion of this frequency range come with this unit. The plug-ins are as follows: * 2-30 MHz, 50, 100, 500, 1000 watts, * 25-250 MHz, 10, 50, 100, 500 watts, * 200 MHz - 1 GHz, 10, 50, 100, 500 watts. This is a military surplus unit. It was last calibrated in 2001. I did check this out on the HF frequencies and the readings are comparable to my Bird 43 wattmeter. The unit looks to be in good shape. The case is missing the latch. Includes a photocopy of the manual.
http://members.cox.net/radiostuff9/urm1203.JPG
http://members.cox.net/radiostuff9/urm1202.JPG
http://members.cox.net/radiostuff9/urm120.JPG

Courier Twenty Three+ Vintage Tube CB Radio.....$100 plus shipping
This is an all tube 23 channel unit which looks to be from the mid 1960's. The unit looks very nice cosmetically. I do not have a microphone so I was not able to fully test the transmitter. Since this requires a microphone to be plugged in to make the receiver operational, I jumpered the microphone connector. The receiver works and I was able to pick up signals on several channels with a piece of wire. I jumped the mike connector to put the radio into transmit and was able to get 5 watts out on my Bird wattmeter.
http://members.cox.net/radiostuff9/courier23.JPG
http://members.cox.net/radiostuff9/courier234.JPG

304TL VT-129 Tubes - NOS....$75 per tube or $140 per pair plus shipping
These tubes were made by North American Philips. These are NOS tubes. I have no way to test them other than check filament continuity.

Rareî National Radio NC-45.....$100 plus shipping
This is an 8 tube receiver made from 1941-1945 covering 550 kHz to 30 MHz. Most models made were made the NC-45 which is an ac/dc receiver. The NC-45A has a transformer operated power supply. This radio does work and receives signals on all bands but it really need to be recapped and aligned. The insides look OK but also need to be cleaned up. I do not have a manual but they are available from several sources on the web. I will include a schematic.
http://members.cox.net/radiodx3/nc45rcvr.JPG

73 and thanks for looking.

Date: Thu, 01 Mar 2007 19:14:33 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: John Dilks K2TQN <oldradio@worldnet.att.net>
Subject: Abuses by Ebay against customers and other dirty deeds
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed
Message-Id: <20070302001649.A1F29317EFC@srvr1.theporch.com>

Hi Gang,

I am a Boat Anchor collector.

I am experiencing a bad time with Ebay right now. In the past I have read some unpleasant stories from time to time from some members on this group. Now that I am having problems too, this has made me aware that possibly some class-action law suit or other legal action may need to be taken against them, or possibly they need to be exposed for what they are in the national media.

If you have something that happened to you and are willing to share this information with me, and enough of us participate, perhaps there will be enough to make a case for a story in the media. If we uncover anything illegal or discriminating, then perhaps a class-action law suit could be started or a federal complaint made.

You have to be willing to stand behind what you say too. Repeating stories you have heard are not needed. UPS and shipping stories are not part of this. Only first person stories directly related to EBAY will be considered.

So if Ebay has beaten you up or treated you unfairly, let me know. I will be filing them until I see a pattern of abuse or become aware of illegal actions by Ebay. Then I will contact you again before I take any action. If I only get a few responses, then I will not do anything.

I am not a lawyer and don't claim to be any kind of legal expert. But as a customer I can recognize when I am being mistreated.

John Dilks, K2TQN

From: "Ed Sieb" <esieb@sympatico.ca>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: USA amateur call sign - overseas
Date: Thu, 1 Mar 2007 19:26:22 -0500
Message-ID: <NIBBKNOPFNLAGHLELMPLAENILIAA.esieb@sympatico.ca>
MIME-Version: 1.0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Due to USA/Canada reciprocal licensing, an International permit is not required. For a US amateur operating in Canada, only a copy of your US license is required. You operate under Canadian regs, including Canadian

band-plans, and power limits. You sign your US callsign plus Canadian province locator, i.e: W9XYZ/VE6, etc. The exact same applies to a Canadian amateur operating in the US.

Ed, VA3ES

Message-ID: <001d01c75c64$db16ad90$c2e47443@KB6NAX>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Lowering power supply output voltage.
Date: Thu, 1 Mar 2007 16:49:57 -0800
MIME-Version: 1.0
Content-Type: text/plain;
    charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

> ...like a zener, ...

Spot on, Tom. current will not flow in both directions at once. I forgot to draw all the arrows in my schematic hence no load resistor to sink the negative excursion. Now you have simplified it even more. A zener diode from center tap to ground, or a string of zener diodes to make up sufficient dissipation capability. The zener's regulation will prevent the deterioration in regulation if using a resistor.

Simply put a 150 volt zener in the center tap to ground to eat up 150 volts worth of B+ and your 250 volt supply is reduced to 100 volts. The total receiver dissipation will now be reduced due to the reduction in tube currents.

Putting the zener either in series with the center tap or tube rectifier cathode makes no difference, as you pointed out. I just try to keep HV exposure to a minimum.

I never was good at pop quizzes.....

Arden Allen
KB6NAX

Message-ID: <001001c75c75$39b83110$640fa8c0@radioroom>
From: "Tom Rauch" <w8ji@contesting.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Lowering power supply output voltage.
Date: Thu, 1 Mar 2007 20:36:13 -0500
MIME-Version: 1.0

Content-Type: text/plain;
     format=flowed;
     charset="iso-8859-1";
     reply-type=original
Content-Transfer-Encoding: 7bit

> Spot on, Tom. current will not flow in both directions at
> once. I forgot
> to draw all the arrows in my schematic hence no load
> resistor to sink the
> negative excursion. Now you have simplified it even more.
> A zener diode
> from center tap to ground, or a string of zener diodes to
> make up sufficient
> dissipation capability. The zener's regulation will
> prevent the
> deterioration in regulation if using a resistor.

The problem is a zener will dissipate the time integrated voltage across the zener times the time integrated current (it's a complex waveform), so we still have heat. It will be the same heat as if we did it with a resistor. The regulation will improve with the zener, but for a 100mA B+ draw a 100 volt Zener would dissipate something like 5-10 watts.

The only way to reduce voltage that really makes sense without adding heat is to add an inductance or add a power line voltage bucking system to knock down the power line at the primary.

After all these systems we are back to the very basic ways again. We either change the voltage through some normal regular means like bucking the power mains or using a choke input or you add some other undesired effect. What surprises me is some of the system can really cause problem. The fact these old radios take our well-intentioned but misguided attempts to make their life easier is really a testimony to how well they were built 50 or 80 years ago.

There ain't no free lunch, but there sure are 100 ways to get heartburn in power supply improvements. That's why I leave the rectifier tubes in, change the bad parts out, fuse things correctly, and lower the mains voltage 10-20% with a big external transformer. I never invade and destroy more than the minimum necessary.

73 Tom

Message-ID: <006a01c75c8b$371856e0$fa01fea9@Default>
From: "David Stinson" <arc5@ix.netcom.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Lowering power supply output voltage.
Date: Thu, 1 Mar 2007 23:25:38 -0600
MIME-Version: 1.0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

> Anyway Dave, are you going to use any of this stuff or are you playing
games
> here?

I'm listening closely and getting ideas.
I'm a firm believer in lower the B+ in boatanchor equipment
in order to preserve original componants and minimize
the amount of "restoration" needed.
I am still working on getting equipment out of storage and
building a place for a real shop, so I can put my hands on stuff
I *know* I have but can't find, and get some work done again.
My family was banished by the
country's medical mafia (truly; the biggest criminal enterprise
in history) to apartment living for six years
and most of my gear is just now seeing daylight at last.
I am keeping these suggestions. Some I'll try, some I'll
use bits and pieces, some I won't do at all (extensive modifications),
some I'll read and choose to disagree, having been otherwise
convinced by my own tinkering.
Just like everyone else.
73 D.S.

Message-ID: <013401c75c8f$78fbe000$fa01fea9@Default>
From: "David Stinson" <arc5@ix.netcom.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Lowering power supply output voltage.
Date: Thu, 1 Mar 2007 23:56:07 -0600
MIME-Version: 1.0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hurrah!
There's a great answer that doesn't require
much messing with the circuit.

I am so glad to be on a list with tons of people
smarter than me....

TNX OM ES 73 Dave S.

----- Original Message -----
From: "Arden Allen" <gumbear@pacbell.net>
Subject: Re: Lowering power supply output voltage.

> > ...like a zener, ...
>
> Spot on, Tom. current will not flow in both directions at once. I forgot
> to draw all the arrows in my schematic hence no load resistor to sink the
> negative excursion. Now you have simplified it even more. A zener diode
> from center tap to ground, or a string of zener diodes to make up
sufficient
> dissipation capability. The zener's regulation will prevent the
> deterioration in regulation if using a resistor.
>
> Simply put a 150 volt zener in the center tap to ground to eat up 150
volts
> worth of B+ and your 250 volt supply is reduced to 100 volts. The total
> receiver dissipation will now be reduced due to the reduction in tube
> currents.
>
> Putting the zener either in series with the center tap or tube rectifier
> cathode makes no difference, as you pointed out. I just try to keep HV
> exposure to a minimum.
>
> I never was good at pop quizzes.....
>
> Arden Allen
> KB6NAX
>

Message-ID: <002101c75c9a$779745f0$72e47443@KB6NAX>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Lowering power supply output voltage.
Date: Thu, 1 Mar 2007 23:14:45 -0800
MIME-Version: 1.0
Content-Type: text/plain;

charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

> The problem is a zener will dissipate the time integrated
> voltage across the zener times the time integrated current
> (it's a complex waveform), so we still have heat.

That's just to say the power dissipated by the zener is a the product of the RMS voltage and currents. Same as for DC, or AC with a power factor of 1. In this case a job for true RMS voltmeter and ammeter. But that's tangential to the discussion. If cooling down the reciever is the object of lowering the B+ and you don't want the zener's heat to be dissipated inside the receiver then mount the zener on a heat sink outside, on the rear panel.

Arden Allen
KB6NAX

Message-ID: <380-22007352115919890@earthlink.net>
From: "Art Lebermann" <artleb@earthlink.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Wanted - QST, May 1955
Date: Fri, 2 Mar 2007 03:59:19 -0800
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII

I'm looking for the May 1955 issue of QST - or a good scan of one article.

Thanks!

Art Lebermann
W6REQ

Message-ID: <45E8445C.7040302@comcast.net>
Date: Fri, 02 Mar 2007 08:35:56 -0700
From: "Herbert M. Rosenthal" <herbrose@comcast.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Postpone and resume... ??
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Transfer-Encoding: 7bit

I tossed the admin instructions when cleaning files; please send me the

email info I must send to stop and to start BA. Sorry to ask.
Herb W5AN
herbrose@comcast.net

Content-Disposition: inline
Content-Transfer-Encoding: binary
Mime-Version: 1.0
From: John Sehring <jsehring@siouxvalley.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Address necessary for US ham call
Content-Type: text/plain
Message-Id: <20070302173231.0DFB129DB90@filter6.e-filtering.net>
Date: Fri, 2 Mar 2007 10:32:31 -0700 (MST)

Well, here's the ARRL reply to my question:

==========
Hi John:

To hold a US license you must have a valid US address where mail from
the Commission can be delivered. A Canadian address won't cut it. You
will need to find someone who will let you use their address for your
license. If you don't, when renewal time comes your license will not
be renewed since you don't meet that requirement in Part 97.

73

Dan Henderson, N1ND
ARRL Regulatory Information Specialist

-----Original Message-----
Subject: Att: Dan Henderson

Hi Dan,

Wondering if you could help me with a question on FCC regs.

I am a US citizen holding a US call (WB0EQ). I live in Canada
permanently (I married a Canadian citizen).

I need to know if I can give the FCC my new mailing address in Canada
or
would this non-US address cause a me problem?

tnx es 73 John Sehring

--John Sehring WB0EQ/VE6

From: "Ed Sieb" <esieb@sympatico.ca>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: Address necessary for US ham call
Date: Fri, 2 Mar 2007 12:45:16 -0500
Message-ID: <NIBBKNOPFNLAGHLELMPLEEOJLIAA.esieb@sympatico.ca>
MIME-Version: 1.0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

You can always get a Canadian ticket. It's good for life,
doesn't need to be renewed, and consists of your station
license and your qualification certificate all in one.

Ed, VA3ES

John Sehring wrote:
Hi John:
To hold a US license you must have a valid US address where mail from
the Commission can be delivered. A Canadian address won't cut it. You
will need to find someone who will let you use their address for your
license. If you don't, when renewal time comes your license will not
be renewed since you don't meet that requirement in Part 97.

Message-ID: <45E87131.2060005@ar88.net>
Date: Fri, 02 Mar 2007 13:47:13 -0500
From: Al Klase <al@ar88.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Need Radiomarine AR-8511 Data
Content-Type: text/plain; charset=ISO-8859-1; format=flowed
Content-Transfer-Encoding: 7bit

Folks,

Does anyone have schematics or other documents for subject radio? This
is the Radiomarine equivalent of the Scott SLR entertainment set. Uses
6ea. 25L6's in push-pull-parallel for the audio output..

Any help appreciated,
Al

--
Al Klase - N3FRQ
Flemington, NJ
http://www.skywaves.ar88.net/

Content-Disposition: inline
Content-Transfer-Encoding: binary
Mime-Version: 1.0
From: John Sehring <jsehring@siouxvalley.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Evaluate freq counters
Content-Type: text/plain
Message-Id: <20070302200216.BBFC52AB0E1@filter6.e-filtering.net>
Date: Fri, 2 Mar 2007 13:02:16 -0700 (MST)

Hi Gang,

Thanks for all the inputs to my question on needing a US address for a US ham ticket.

*****

Now...I'm looking for guidance on evaluation freq counters. I've got 3 of them. No, they're not boatanchors but they are almost as old as some BA's, from the lat 70's. They're all ss, good to abt 600 MHz:

1. Ramsey Electronics (I built it from a kit) CT-90

2. Optoelectronics 7010.1

3. Sabtronics 8610A

The BA content is that I'll use 'em to work on BA's.

What should I look for in the performance of a freq counter? I haven't had much exp with f.c's. My limited exp shows that using the correct probe is vy important to avoid measurement artifacts, i.e. ridiculous readings and/or unstable! I'm using an Optoelectronics P-102 "Hi Z probe" on each counter. One thing I did do is hook each f.c. to my olde Heath SG-8 RF sig gen. It's got a bad HV filter cap, so it's always 120 Hz modulated.

I ran up the freq scale & also reduced its output & cked each f.c. Results are the each f.c. stopped counting at a diff. freq (at around 200 MHz, abt the limit of the gen, on it's harmonics); also, that each f.c. stopped counting at a different input level at various freqs, implying different sensitivities.

I have some appreciation of the effects of waveform distortion & spurious noise on a sig being measured by a f.c. and by use of improper f.c. probe.

I look forward to hearing the gathered wisdom of this congregation of devoted filamentarians!

PS I will be a "casual contester" using my Drake Twins (R-4B/T-4B) in this weekend's DX contest, i.e. I don't count my points, just want to give relative rare province (Alberta) to DXers.

 --John Sehring WB0EQ/VE6

Date: Fri, 2 Mar 2007 14:46:52 -0600 (CST)
From: Bob Roehrig <broehrig@aurora.edu>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Evaluate freq counters
Message-ID: <Pine.LNX.4.61.0703021437430.20781@hermes.aurora.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII; format=flowed

Since the upper frequency limit on all is about the same that eliminates one concern.

I am not familiar with any of those counters. SOunds like you want to just keep one - is that the issue?

To me one major concern is the time base - is it a standard frequency, like 1 or 10 MHz that can easily be checked against another standard? Is it oven-ized or temp stabilized?

Does the counter have any unobtainable parts? I have a great Fluke counter but it has a proprietary IC in it - if that ever goes the whole thing is trash.

Suitable ranges/gate times to get the number of decimal places you want at all frequency ranges.

Multi-function - can it read period (for example) as well as frequency? Audio frequencies below 1 kHz can be read better/faster as period rather than frequency.

Bob Roehrig
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"Nostalgia is a thing of the past"

From: "Gary H. Harmon Jr." <gharmon@idworld.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Old MARS Linear
Date: Fri, 2 Mar 2007 16:51:48 -0600
Message-ID: <007801c75d1d$5c165270$4001a8c0@yourtwa0macjqu>
MIME-Version: 1.0
Content-Type: text/plain;
charset="us-ascii"
Content-Transfer-Encoding: 7bit

Was there a MARS linear called SDP or something like that? It may have had some kind of 4CX type tube and it also came with a separate transmitter/exciter.

Who knows?

73, gary

=========////////==========
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